

Fluor Hanford
WSCF Analytical Chemistry
P.O. Box 1000
Richland, WA 99352
Telephone 373-7495
Telefax 372-0456

0005056

FLUOR

Memorandum

M8141-SLF-05-013

To: S. J. Trent A0-21 Date: January 7, 2005

From: S. L. Fitzgerald, Manager
WSCF Analytical Chemistry

cc: w/Attachments w/o Attachments
T. F. Dale S3-28 D. J. Hart S3-30
H. K. Meznarich S3-30 M. A. Neely S3-30
P. D. Mix S3-30 H. S. Rich S3-28
J. E. Trechter S3-30 L. C. Swanson E6-35
File/LB

Subject: FINAL RESULTS FOR 200-LW-1/LW-2 CHARACTERIZATION - SOIL - SAMPLE
DELIVERY GROUP WSCF20042304 SAF NUMBER F03-025

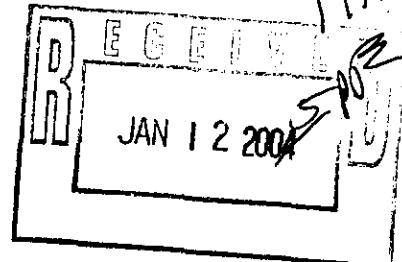
Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001,
October 31, 2002
(2) HNF-SD-CD-QAPP-017, Rev. 6, Waste Sampling & Characterization Facility Quality
Assurance Plan

This letter contains a narrative (Attachment 1) for sample delivery group WSCF20042304, the analytical results (Attachment 2), and the sample receipt information (Attachment 3).

SLF/grf

Attachments 3

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M8141-SLF-05-013

ATTACHMENT 1

NARRATIVE

Consisting of 7 pages
Including cover page

Sample Delivery Group	WSCF20042304
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F03-025
Data Deliverable	Summary Report

Introduction

One (1) 200-LW-1/LW-2 Characterization – Soil, 216 T-28, 223.5 – 226', GRP sample (B19197) was received at the WSCF Laboratory on December 2, 2004. The sample was analyzed for the analytes indicated on the three attached copy of the chains of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the three chains of custody and Request for Sample Analysis forms are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Ammonia by EPA Method 300.7. Analytical work was performed with no deviations to the approved method.
- Anions by EPA Method 300. Analytical work was performed with no deviations to the approved method.
- Cyanide by EPA Method 335.2. Analytical work was performed with no deviations to the approved method.
- ICP-AES Metals by EPA Method 6010B. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 150.1. Analytical work was performed with no deviations to the approved method.

Organic

- Alcohols/Glycols by EPA Method 8015. Analytical work was performed with no deviations to the approved method.
- PCBs by EPA Method 8082B. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.
- TPH Diesel Range by WDOE Method NWTPH-Dx. Analytical work was performed with no deviations to the approved method.
- TPH Gas Range by WDOE Method NWTPH-Dx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260A. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA (Plutonium, Americium, Uranium and Neptunium) and GEA) were run by internal WDOE accredited WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Ammonia - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 12 for QC details. Analytical Note:

- Sample B19197 result was B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.

All QC controls are within the established limits.

Anions - The hold times for Nitrite and Nitrate analysis were not met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See pages 13 through 14 for QC details.

Analytical Notes:

- Preparation Date: 16-dec-2004.
- Chloride and Sulfate - Sample B19197 results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.

- Chloride and Sulfate – Duplicate Relative Percent Difference exceeded the established laboratory limits. The RPD criterion is not applicable for sample results less than ten times the Method Detection Limit.
- Phosphate – The Matrix Spike and Matrix Spike Duplicate recoveries were below the established laboratory limits. Sample B19197 result was less than the detection limit and U-flagged.

All other QC controls are within the established limits.

Cyanide - The hold time for this analysis was met. A Blank, Preparation Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1BW58 (SDG# 20042271, SAF# F03-018).

All QC controls are within the established limits.

ICP-AES Metals (Bismuth only) – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 16 for QC details. Analytical Notes:

- Preparation Date: 16-dec-2004.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1BW58 (SDG# 20042271, SAF# F03-018).
- Bismuth - The analyte detected in the associated preparation Blank sample was evaluated and there was no significant affect on the sample result.

All QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 17 through 25 for QC details. Analytical Notes:

- Preparation Date: 14-dec-2004.
- Matrix Spike precision was evaluated on sample# B19974 (SDG# 20042382, SAF# F04-019).
- Barium, Copper, Mercury, Nickel, Lead and Selenium - The analytes detected in the associated preparation Blank sample were evaluated and there was no significant affect on the sample results.

All other QC controls are within the established limits.

Percent Solids – analyzed for organic moisture correction.

pH - The hold time for this analysis was met. A Laboratory Control Sample and Duplicate sample was not analyzed as per the GRP Letter of Instruction. All internal laboratory QC controls for the method were within the established limits.

Organic Comments

- Sample results are moisture corrected and reported on dry weight basis.

Alcohol/Glycols - The hold time for this analysis were met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 29 for QC details. Analytical Notes:

- Preparation Date: 13-dec-2004.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1BYR1 (SDG# 20042354, SAF# F04-020).
- Ethylene Glycol – The Matrix Spike recovery was below established laboratory limits and the matrix spike Relative Percent Difference exceeded the established limit. Sample B19197 result was below the detection limit and U-flagged.

All QC other controls are within the established limits.

PCBs – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 30 through 31 for QC details. Analytical Notes:

- Preparation Date: 13-dec-2004.
- Tetrachloro-m-xylene (surrogate) – The Laboratory Control Sample, Matrix Spike Duplicate and surrogate recoveries were below established laboratory limits due to evaporation during concentrating (affecting the spike Relative Percent Difference).

All other QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 32 through 35 for QC details. Analytical Notes:

- Preparation Date: 13-dec-2004.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19940 (SDG# 20042380, SAF# F04-015).

All QC controls are within the established limits.

TPHD-WA - The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 36 for QC details. Analytical Notes:

- Preparation Date: 13-dec-2004.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19940 (SDG# 20042380, SAF# F04-015).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis were met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 37 for QC details. Analytical Notes:

- Preparation Date: 15-dec-2004.
- Duplicate QC samples were analyzed on sample# B1B578 (SDG# 20042392, SAF# F03-006).
- Total Petroleum Hydrocarbons Gas – The Laboratory Control Sample was below established laboratory limits. All other QC samples were within limits and the sample results were not flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 38 through 40 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1BR56 (SDG# 20042307, SAF# F04-033).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with these WDOE accredited methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 42 through 46 for QC details. Analytical Note:

- Neptunium-237 – Laboratory Control Sample recovery was below established laboratory limits. Sample result was below the detection limit and not flagged, but should be considered suspect.

All other QC controls are within the established limits.

Radiochemical Tracer Percent Recovery

Sample Number	Lab Sample ID	Isotope	Tracer Recovery (Percent)
BLANK		Pu-242	82.4
LCS		Pu-242	91.2
B19197	W040002532	Pu-242	78.5
DUPLICATE	W040002532	Pu-242	86.8
BLANK		Am-243	81.8
LCS		Am-243	93.8
B19197	W040002532	Am-243	77.0
DUPLICATE	W040002532	Am-243	77.5
BLANK		U-232	86.2
LCS		U-232	77.2
B19197	W040002532	U-232	80.4
DUPLICATE	W040002532	U-232	72.9

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Herlene S. Rich
WSCF Production Control

Abbreviations

Hg – mercury
 IC – ion chromatography
 ICP – inductively coupled plasma
 ICP/AES – ICP/atomic emission spectroscopy
 ICP/MS – ICP/mass spectrometry
 Total U – total uranium
 AT/TB – total alpha/total beta
 AEA – Alpha Energy Analysis
 WTPH-G – Total Hydrocarbons-Gasoline

Am – americium
 Cm - curium
 Pu – plutonium
 Np – neptunium
 GEA – gamma energy analysis
 H3 – Tritium
 Sr – Strontium 89, 90
 WTPH-D – Total Hydrocarbons-Diesel
 TSS – Total Suspended Solids

M8141-SLF-05-013

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 46 pages
Including cover page

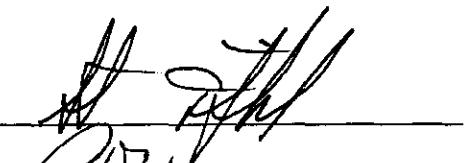
WSCF
ANALYTICAL RESULTS REPORT

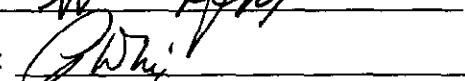
for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: 

Client Services: 

All results are reported on an "as received" basis unless otherwise noted in the comment section.

Confidentiality Notice: The information contained in this report is privileged and confidential information intended only for the use of the addressee. If the reader of this report is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone at (509) 373-7020.

Contract#: FH-EIS-2003-MEM-001

Report#: WSCF20042304

Report Date: 6-jan-2005

Report WGPP/ver. 1.1

Groundwater Remediation Program

Page 1

WSCF

ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F03-025: F03-025

Group #: WSCF20042304

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze Sample	Receive	
					Method	RQ							
Inorganic													
W040002532	B19197	GRP	TRENT	57-12-5	Cyanide	SOIL	LA-695-402	U	< 0.200	mg/kg	1.00	0.20	12/08/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	NH4-N	Nitrogen in ammonium	SOIL	LA-503-401	B	0.207	mg/kg	49.00	0.20	12/21/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	TS	Total solids	SOIL	LA-519-412		95.4	%	1.00	0.0	12/07/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411		9.15	pH	1.00	0.010	12/07/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	16984-48-8	Fluoride	SOIL	LA-533-410	U	< 1.15	mg/kg	50.00	1.2	12/16/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	16887-00-6	Chloride	SOIL	LA-533-410	B	6.02	mg/kg	50.00	2.6	12/16/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	NO2-N	Nitrogen in Nitrite	SOIL	LA-533-410	U	< 0.950	mg/kg	50.00	0.95	12/16/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	NO3-N	Nitrogen in Nitrate	SOIL	LA-533-410	U	< 0.650	mg/kg	50.00	0.65	12/16/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	P04-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	12/16/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	B	9.33	mg/kg	50.00	5.0	12/16/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-69-9	Bismuth	SOIL	LA-505-411	U	< 2.16	mg/kg	98.27	2.2	12/16/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-02-0	Nickel	SOIL	LA-505-412		21.6	mg/kg	9.93	0.21	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-22-4	Silver	SOIL	LA-505-412	U	< 9.93e-03	mg/kg	9.93	9.9e-03	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-36-0	Antimony	SOIL	LA-505-412	U	< 7.09	mg/kg	9.93	7.1	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-39-3	Barium	SOIL	LA-505-412		69.8	mg/kg	9.93	0.91	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-41-7	Beryllium	SOIL	LA-505-412		0.173	mg/kg	9.93	0.020	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	U	< 0.0199	mg/kg	9.93	0.020	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412		28.6	mg/kg	9.93	3.3	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-50-8	Copper	SOIL	LA-505-412		12.6	mg/kg	9.93	0.64	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412		3.86	mg/kg	9.93	0.26	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7439-97-6	Mercury	SOIL	LA-505-412		0.638	mg/kg	9.93	9.9e-03	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-61-1	Uranium	SOIL	LA-505-412		0.305	mg/kg	9.93	0.16	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7440-38-2	Arsenic	SOIL	LA-505-412	U	< 2.38	mg/kg	9.93	2.4	12/15/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	7782-49-2	Selenium	SOIL	LA-505-412	U	< 0.725	mg/kg	9.93	0.72	12/15/04 12/02/04 12/02/04

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: Ammonia (N) by IC

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Ammonia (N) by IC	7664-41-7	2.26e-01	8.776	RPD	12/21/04	0.000	20.000	
MS	Ammonia (N) by IC	7664-41-7	3.36e-01	83.582	% Recov	12/21/04	75.000	125.000	
MSD	Ammonia (N) by IC	7664-41-7	3.18e-01	79.104	% Recov	12/22/04	75.000	125.000	

BATCH QC

BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	12/21/04	0.000	30.000	U
BLANK	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	mg/L	12/22/04	0.000	30.000	U
LCS	Ammonia (N) by IC	7664-41-7	8.18e+01	99.272	% Recov	12/21/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: Anions by Ion Chromatography

SAF Number: F03-025

Sample Date: 12/02/04

Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	8.53e+00	34.502	RPD	12/16/04	0.000	20.000	*
DUP	Fluoride	16984-48-8	<1.15e0	n/a	RPD	12/16/04	0.000	20.000	U
DUP	Nitrogen in Nitrite	NO2-N	<9.50e-1	n/a	RPD	12/16/04	0.000	20.000	U
DUP	Nitrogen in Nitrate	NO3-N	8.68e-01	n/a	RPD	12/16/04	0.000	20.000	
DUP	Phosphate (P) by IC	PO4-P	<2.70e0	n/a	RPD	12/16/04	0.000	20.000	U
DUP	Sulfate	14808-79-8	1.28e+01	31.360	RPD	12/16/04	0.000	20.000	*
MS	Chloride	16887-00-6	1.04e+00	104.000	% Recov	12/16/04	75.000	125.000	
MS	Fluoride	16984-48-8	4.39e-01	88.866	% Recov	12/16/04	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	4.93e-01	98.600	% Recov	12/16/04	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	4.69e-01	103.991	% Recov	12/16/04	75.000	125.000	
MS	Phosphate (P) by IC	PO4-P	4.98e-01	51.393	% Recov	12/16/04	75.000	125.000	*
MS	Sulfate	14808-79-8	1.94e+00	97.000	% Recov	12/16/04	75.000	125.000	
MSD	Chloride	16887-00-6	1.05e+00	105.000	% Recov	12/16/04	75.000	125.000	
MSD	Fluoride	16984-48-8	4.39e-01	88.866	% Recov	12/16/04	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	5.01e-01	100.200	% Recov	12/16/04	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.79e-01	106.208	% Recov	12/16/04	75.000	125.000	
MSD	Phosphate (P) by IC	PO4-P	4.83e-01	49.845	% Recov	12/16/04	75.000	125.000	*
MSD	Sulfate	14808-79-8	2.04e+00	102.000	% Recov	12/16/04	75.000	125.000	

BATCH QC

BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Chloride	16887-00-6	<5.20e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<2.30e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<1.90e-2	n/a	mg/L	12/16/04	0.000	300.000	U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: Anions by Ion Chromatography

SAF Number: F03-025

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<1.30e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<5.40e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<5.40e-2	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	12/16/04	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	12/16/04	0.000	300.000	U
LCS	Chloride	16887-00-6	2.11e+02	105.500	% Recov	12/16/04	80.000	120.000	
LCS	Fluoride	16984-48-8	9.08e+01	91.996	% Recov	12/16/04	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	1.01e+02	101.000	% Recov	12/16/04	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	9.22e+01	102.331	% Recov	12/16/04	80.000	120.000	
LCS	Phosphate (P) by IC	PO4-P	1.80e+02	92.879	% Recov	12/16/04	80.000	120.000	
LCS	Sulfate	14808-79-8	3.96e+02	99.248	% Recov	12/16/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-025

Sample Date: 11/30/04

Receive Date: 11/30/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002509

BATCH QC ASSOCIATED WITH SAMPLE

MS	Cyanide by Midi/Spectrophotom	57-12-5	87.0	87.000	% Recov	12/08/04	75.000	125.000	
MSD	Cyanide by Midi/Spectrophotom	57-12-5	97.3	97.300	% Recov	12/08/04	75.000	125.000	
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	97.300	11.177	RPD	12/08/04	0.000	20.000	

BATCH QC

BLANK	Cyanide by Midi/Spectrophotom	57-12-5	1	1.000	ug/L	12/08/04	-4.000	4.000	
BLNK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	1	1.000	ug/L	12/08/04	-4.000	4.000	
LCS	Cyanide by Midi/Spectrophotom	57-12-5	99.8	99.800	% Recov	12/08/04	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP Metals Analysis, Grd H2O P

SAF Number: F03-025

Sample Date: 11/30/04

Receive Date: 11/30/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002509

BATCH QC ASSOCIATED WITH SAMPLE

MS	Bismuth	7440-69-9	179	90.404	% Recov	12/16/04	75.000	125.000	
MSD	Bismuth	7440-69-9	171	88.601	% Recov	12/16/04	75.000	125.000	
SPK-RPD	Bismuth	7440-69-9	88.601	2.014	RPD	12/16/04	0.000	20.000	

BATCH QC

BLANK	Bismuth	7440-69-9	8.3	8.300	ug/L	12/16/04			
LCS	Bismuth	7440-69-9	183	91.500	% Recov	12/16/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 11/24/04

Receive Date: 11/29/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002460

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	347.5	86.875	% Recov	12/15/04	70.000	130.000	
MS	Arsenic	7440-38-2	380.3	95.075	% Recov	12/15/04	70.000	130.000	
MS	Barium	7440-39-3	352.42	88.105	% Recov	12/15/04	70.000	130.000	
MS	Beryllium	7440-41-7	354.2195	88.555	% Recov	12/15/04	70.000	130.000	
MS	Cadmium	7440-43-9	365.5	91.375	% Recov	12/15/04	70.000	130.000	
MS	Chromium	7440-47-3	358.63	89.657	% Recov	12/15/04	70.000	130.000	
MS	Copper	7440-50-8	354.438	88.609	% Recov	12/15/04	70.000	130.000	
MS	Mercury	7439-97-6	15.5264	77.632	% Recov	12/15/04	70.000	130.000	
MS	Nickel	7440-02-0	351.74	87.935	% Recov	12/15/04	70.000	130.000	
MS	Lead	7439-92-1	346.4044	86.601	% Recov	12/15/04	70.000	130.000	
MS	Antimony	7440-36-0	384.8	96.200	% Recov	12/15/04	70.000	130.000	
MS	Selenium	7782-49-2	384	96.000	% Recov	12/15/04	70.000	130.000	
MS	Uranium	7440-61-1	347.1927	86.798	% Recov	12/15/04	70.000	130.000	
MSD	Silver	7440-22-4	369.5	92.375	% Recov	12/15/04	70.000	130.000	
MSD	Arsenic	7440-38-2	405.4	101.350	% Recov	12/15/04	70.000	130.000	
MSD	Barium	7440-39-3	391.82	97.955	% Recov	12/15/04	70.000	130.000	
MSD	Beryllium	7440-41-7	370.1195	92.530	% Recov	12/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	387.7	96.925	% Recov	12/15/04	70.000	130.000	
MSD	Chromium	7440-47-3	371.43	92.858	% Recov	12/15/04	70.000	130.000	
MSD	Copper	7440-50-8	376.338	94.085	% Recov	12/15/04	70.000	130.000	
MSD	Mercury	7439-97-6	16.9164	84.582	% Recov	12/15/04	70.000	130.000	
MSD	Nickel	7440-02-0	376.94	94.235	% Recov	12/15/04	70.000	130.000	
MSD	Lead	7439-92-1	372.7044	93.176	% Recov	12/15/04	70.000	130.000	
MSD	Antimony	7440-36-0	401.3	100.325	% Recov	12/15/04	70.000	130.000	
MSD	Selenium	7782-49-2	415.6	103.900	% Recov	12/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	370.6927	92.673	% Recov	12/15/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 11/24/04

Receive Date: 11/29/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040002509									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Mercury	7439-97-6	17.3202	86.601	% Recov	12/15/04	70.000	130.000	
MS	Uranium	7440-61-1	378.8373	94.709	% Recov	12/15/04	70.000	130.000	
MSD	Mercury	7439-97-6	17.1902	85.951	% Recov	12/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	382.5373	95.634	% Recov	12/15/04	70.000	130.000	
Lab ID: W040002532									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Silver	7440-22-4	359.6	89.900	% Recov	12/15/04	70.000	130.000	
MS	Arsenic	7440-38-2	401.9	100.475	% Recov	12/15/04	70.000	130.000	
MS	Barium	7440-39-3	360.75	90.188	% Recov	12/15/04	70.000	130.000	
MS	Beryllium	7440-41-7	355.6267	88.907	% Recov	12/15/04	70.000	130.000	
MS	Cadmium	7440-43-9	380.6	95.150	% Recov	12/15/04	70.000	130.000	
MS	Chromium	7440-47-3	352.5	88.125	% Recov	12/15/04	70.000	130.000	
MS	Copper	7440-50-8	361.51	90.377	% Recov	12/15/04	70.000	130.000	
MS	Mercury	7439-97-6	16.8417	84.209	% Recov	12/15/04	70.000	130.000	
MS	Nickel	7440-02-0	354.35	88.588	% Recov	12/15/04	70.000	130.000	
MS	Lead	7439-92-1	366.841	91.710	% Recov	12/15/04	70.000	130.000	
MS	Antimony	7440-36-0	392.4	98.100	% Recov	12/15/04	70.000	130.000	
MS	Selenium	7782-49-2	402	100.500	% Recov	12/15/04	70.000	130.000	
MS	Uranium	7440-61-1	373.7951	93.449	% Recov	12/15/04	70.000	130.000	
MSD	Silver	7440-22-4	370.3	92.575	% Recov	12/15/04	70.000	130.000	
MSD	Arsenic	7440-38-2	413.3	103.325	% Recov	12/15/04	70.000	130.000	
MSD	Barium	7440-39-3	370.45	92.612	% Recov	12/15/04	70.000	130.000	
MSD	Beryllium	7440-41-7	384.5267	96.132	% Recov	12/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	392.9	98.225	% Recov	12/15/04	70.000	130.000	
MSD	Chromium	7440-47-3	430.7	107.675	% Recov	12/15/04	70.000	130.000	
MSD	Copper	7440-50-8	381.01	95.252	% Recov	12/15/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 12/02/04

Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Mercury	7439-97-6	17.2517	86.258	% Recov	12/15/04	70.000	130.000	
MSD	Nickel	7440-02-0	411.25	102.812	% Recov	12/15/04	70.000	130.000	
MSD	Lead	7439-92-1	375.141	93.785	% Recov	12/15/04	70.000	130.000	
MSD	Antimony	7440-36-0	405.2	101.300	% Recov	12/15/04	70.000	130.000	
MSD	Selenium	7782-49-2	415.6	103.900	% Recov	12/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	379.8951	94.974	% Recov	12/15/04	70.000	130.000	

Lab ID: W040002534

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	335.2	83.800	% Recov	12/15/04	70.000	130.000	
MS	Arsenic	7440-38-2	386.242	96.561	% Recov	12/15/04	70.000	130.000	
MS	Barium	7440-39-3	346.15	86.537	% Recov	12/15/04	70.000	130.000	
MS	Beryllium	7440-41-7	348.24271	87.061	% Recov	12/15/04	70.000	130.000	
MS	Cadmium	7440-43-9	365.9	91.475	% Recov	12/15/04	70.000	130.000	
MS	Chromium	7440-47-3	330.4	82.600	% Recov	12/15/04	70.000	130.000	
MS	Copper	7440-50-8	340.241	85.060	% Recov	12/15/04	70.000	130.000	
MS	Mercury	7439-97-6	16.0022	80.011	% Recov	12/15/04	70.000	130.000	
MS	Nickel	7440-02-0	350.215	87.554	% Recov	12/15/04	70.000	130.000	
MS	Lead	7439-92-1	351.3	87.825	% Recov	12/15/04	70.000	130.000	
MS	Antimony	7440-36-0	393.4	98.350	% Recov	12/15/04	70.000	130.000	
MS	Selenium	7782-49-2	395.155	98.789	% Recov	12/15/04	70.000	130.000	
MS	Uranium	7440-61-1	354.59	88.647	% Recov	12/15/04	70.000	130.000	
MSD	Silver	7440-22-4	353.9	88.475	% Recov	12/15/04	70.000	130.000	
MSD	Arsenic	7440-38-2	386.242	96.561	% Recov	12/15/04	70.000	130.000	
MSD	Barium	7440-39-3	368.55	92.138	% Recov	12/15/04	70.000	130.000	
MSD	Beryllium	7440-41-7	358.04271	89.511	% Recov	12/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	381.7	95.425	% Recov	12/15/04	70.000	130.000	
MSD	Chromium	7440-47-3	347.1	86.775	% Recov	12/15/04	70.000	130.000	
MSD	Copper	7440-50-8	369.541	92.385	% Recov	12/15/04	70.000	130.000	
MSD	Mercury	7439-97-6	16.8122	84.061	% Recov	12/15/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 12/02/04

Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Nickel	7440-02-0	365.815	91.454	% Recov	12/15/04	70.000	130.000	
MSD	Lead	7439-92-1	364	91.000	% Recov	12/15/04	70.000	130.000	
MSD	Antimony	7440-36-0	414.1	103.525	% Recov	12/15/04	70.000	130.000	
MSD	Selenium	7782-49-2	401.155	100.289	% Recov	12/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	368.49	92.123	% Recov	12/15/04	70.000	130.000	

Lab ID: W040002558

BATCH QC ASSOCIATED WITH SAMPLE

MS	Cadmium	7440-43-9	395.4	98.850	% Recov	12/15/04	70.000	130.000	
MS	Uranium	7440-61-1	374.4586	93.615	% Recov	12/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	369.9	92.475	% Recov	12/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	362.3586	90.590	% Recov	12/15/04	70.000	130.000	

Lab ID: W040002567

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	360.0095	90.002	% Recov	12/15/04	70.000	130.000	
MS	Arsenic	7440-38-2	394.7	98.675	% Recov	12/15/04	70.000	130.000	
MS	Barium	7440-39-3	376.54	94.135	% Recov	12/15/04	70.000	130.000	
MS	Beryllium	7440-41-7	345.0378	86.259	% Recov	12/15/04	70.000	130.000	
MS	Cadmium	7440-43-9	374.4	93.600	% Recov	12/15/04	70.000	130.000	
MS	Chromium	7440-47-3	291.24	72.810	% Recov	12/15/04	70.000	130.000	
MS	Copper	7440-50-8	357.706	89.427	% Recov	12/15/04	70.000	130.000	
MS	Mercury	7439-97-6	16.1126	80.563	% Recov	12/15/04	70.000	130.000	
MS	Nickel	7440-02-0	316	79.000	% Recov	12/15/04	70.000	130.000	
MS	Lead	7439-92-1	358.4	89.600	% Recov	12/15/04	70.000	130.000	
MS	Antimony	7440-36-0	392.2	98.050	% Recov	12/15/04	70.000	130.000	
MS	Selenium	7782-49-2	396.3	99.075	% Recov	12/15/04	70.000	130.000	
MS	Uranium	7440-61-1	359.4904	89.873	% Recov	12/15/04	70.000	130.000	
MSD	Silver	7440-22-4	357.2095	89.302	% Recov	12/15/04	70.000	130.000	
MSD	Arsenic	7440-38-2	386.9	96.725	% Recov	12/15/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 12/09/04

Receive Date: 12/09/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Barium	7440-39-3	367.74	91.935	% Recov	12/15/04	70.000	130.000	
MSD	Beryllium	7440-41-7	348.3378	87.084	% Recov	12/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	372.9	93.225	% Recov	12/15/04	70.000	130.000	
MSD	Chromium	7440-47-3	289.14	72.285	% Recov	12/15/04	70.000	130.000	
MSD	Copper	7440-50-8	360.806	90.201	% Recov	12/15/04	70.000	130.000	
MSD	Mercury	7439-97-6	16.2526	81.263	% Recov	12/15/04	70.000	130.000	
MSD	Nickel	7440-02-0	330.4	82.600	% Recov	12/15/04	70.000	130.000	
MSD	Lead	7439-92-1	359	89.750	% Recov	12/15/04	70.000	130.000	
MSD	Antimony	7440-36-0	374.2	93.550	% Recov	12/15/04	70.000	130.000	
MSD	Selenium	7782-49-2	400.1	100.025	% Recov	12/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	359.2904	89.823	% Recov	12/15/04	70.000	130.000	

Lab ID: W040002569

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	336.7	84.175	% Recov	12/15/04	70.000	130.000	
MS	Arsenic	7440-38-2	383.646	95.912	% Recov	12/15/04	70.000	130.000	
MS	Barium	7440-39-3	334.37	83.593	% Recov	12/15/04	70.000	130.000	
MS	Beryllium	7440-41-7	355.9502	88.988	% Recov	12/15/04	70.000	130.000	
MS	Cadmium	7440-43-9	380.5	95.125	% Recov	12/15/04	70.000	130.000	
MS	Chromium	7440-47-3	334	83.500	% Recov	12/15/04	70.000	130.000	
MS	Copper	7440-50-8	352.85	88.213	% Recov	12/15/04	70.000	130.000	
MS	Mercury	7439-97-6	16.1271	80.635	% Recov	12/15/04	70.000	130.000	
MS	Nickel	7440-02-0	359.19	89.797	% Recov	12/15/04	70.000	130.000	
MS	Lead	7439-92-1	358.217	89.554	% Recov	12/15/04	70.000	130.000	
MS	Antimony	7440-36-0	369	92.250	% Recov	12/15/04	70.000	130.000	
MS	Selenium	7782-49-2	393.7	98.425	% Recov	12/15/04	70.000	130.000	
MS	Uranium	7440-61-1	358.3268	89.582	% Recov	12/15/04	70.000	130.000	
MSD	Silver	7440-22-4	378.9	94.725	% Recov	12/15/04	70.000	130.000	
MSD	Arsenic	7440-38-2	398.246	99.561	% Recov	12/15/04	70.000	130.000	
MSD	Barium	7440-39-3	392.67	98.168	% Recov	12/15/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 12/09/04

Receive Date: 12/09/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Beryllium	7440-41-7	372.3502	93.088	% Recov	12/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	394.5	98.625	% Recov	12/15/04	70.000	130.000	
MSD	Chromium	7440-47-3	358.5	89.625	% Recov	12/15/04	70.000	130.000	
MSD	Copper	7440-50-8	385.55	96.388	% Recov	12/15/04	70.000	130.000	
MSD	Mercury	7439-97-6	17.1371	85.686	% Recov	12/15/04	70.000	130.000	
MSD	Nickel	7440-02-0	371.99	92.998	% Recov	12/15/04	70.000	130.000	
MSD	Lead	7439-92-1	379.817	94.954	% Recov	12/15/04	70.000	130.000	
MSD	Antimony	7440-36-0	395.7	98.925	% Recov	12/15/04	70.000	130.000	
MSD	Selenium	7782-49-2	411.9	102.975	% Recov	12/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	379.0268	94.757	% Recov	12/15/04	70.000	130.000	

Lab ID: W040002581

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	378.1	94.525	% Recov	12/15/04	70.000	130.000	
MS	Cadmium	7440-43-9	397.4	99.350	% Recov	12/15/04	70.000	130.000	
MS	Chromium	7440-47-3	346.9	86.725	% Recov	12/15/04	70.000	130.000	
MS	Copper	7440-50-8	374.73	93.683	% Recov	12/15/04	70.000	130.000	
MS	Mercury	7439-97-6	17.0837	85.418	% Recov	12/15/04	70.000	130.000	
MS	Lead	7439-92-1	375.7	93.925	% Recov	12/15/04	70.000	130.000	
MS	Uranium	7440-61-1	378.8689	94.717	% Recov	12/15/04	70.000	130.000	
MSD	Silver	7440-22-4	344.7	86.175	% Recov	12/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	384.6	96.150	% Recov	12/15/04	70.000	130.000	
MSD	Chromium	7440-47-3	349.6	87.400	% Recov	12/15/04	70.000	130.000	
MSD	Copper	7440-50-8	373.73	93.433	% Recov	12/15/04	70.000	130.000	
MSD	Mercury	7439-97-6	16.8737	84.368	% Recov	12/15/04	70.000	130.000	
MSD	Lead	7439-92-1	370.5	92.625	% Recov	12/15/04	70.000	130.000	
MSD	Uranium	7440-61-1	375.7689	93.942	% Recov	12/15/04	70.000	130.000	
SPK-RPD	Uranium	7440-61-1	93.942	0.822	RPD	12/15/04	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 12/10/04

Receive Date: 12/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040002585									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Silver	7440-22-4	345.6302	86.408	% Recov	12/15/04	70.000	130.000	
MS	Arsenic	7440-38-2	381.7	95.425	% Recov	12/15/04	70.000	130.000	
MS	Barium	7440-39-3	370.99	92.748	% Recov	12/15/04	70.000	130.000	
MS	Beryllium	7440-41-7	334.6113	83.653	% Recov	12/15/04	70.000	130.000	
MS	Cadmium	7440-43-9	365.6	91.400	% Recov	12/15/04	70.000	130.000	
MS	Chromium	7440-47-3	312.6	78.150	% Recov	12/15/04	70.000	130.000	
MS	Copper	7440-50-8	351.56	87.890	% Recov	12/15/04	70.000	130.000	
MS	Mercury	7439-97-6	16.0482	80.241	% Recov	12/15/04	70.000	130.000	
MS	Nickel	7440-02-0	350.469	87.617	% Recov	12/15/04	70.000	130.000	
MS	Lead	7439-92-1	351.5	87.875	% Recov	12/15/04	70.000	130.000	
MS	Antimony	7440-36-0	389.8	97.450	% Recov	12/15/04	70.000	130.000	
MS	Selenium	7782-49-2	386.712	96.678	% Recov	12/15/04	70.000	130.000	
MSD	Silver	7440-22-4	349.1302	87.283	% Recov	12/15/04	70.000	130.000	
MSD	Arsenic	7440-38-2	391.7	97.925	% Recov	12/15/04	70.000	130.000	
MSD	Barium	7440-39-3	390.49	97.623	% Recov	12/15/04	70.000	130.000	
MSD	Beryllium	7440-41-7	339.3113	84.828	% Recov	12/15/04	70.000	130.000	
MSD	Cadmium	7440-43-9	378.7	94.675	% Recov	12/15/04	70.000	130.000	
MSD	Chromium	7440-47-3	332.4	83.100	% Recov	12/15/04	70.000	130.000	
MSD	Copper	7440-50-8	374.56	93.640	% Recov	12/15/04	70.000	130.000	
MSD	Mercury	7439-97-6	16.9582	84.791	% Recov	12/15/04	70.000	130.000	
MSD	Nickel	7440-02-0	369.269	92.317	% Recov	12/15/04	70.000	130.000	
MSD	Lead	7439-92-1	362.4	90.600	% Recov	12/15/04	70.000	130.000	
MSD	Antimony	7440-36-0	403.1	100.775	% Recov	12/15/04	70.000	130.000	
MSD	Selenium	7782-49-2	399.312	99.828	% Recov	12/15/04	70.000	130.000	
SPK-RPD	Silver	7440-22-4	87.283	1.008	RPD	12/15/04	0.000	20.000	
SPK-RPD	Arsenic	7440-38-2	97.925	2.586	RPD	12/15/04	0.000	20.000	
SPK-RPD	Barium	7440-39-3	97.623	5.122	RPD	12/15/04	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 12/10/04

Receive Date: 12/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Beryllium	7440-41-7	84.828	1.395	RPD	12/15/04	0.000	20.000	
SPK-RPD	Cadmium	7440-43-9	94.675	3.520	RPD	12/15/04	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	83.100	6.140	RPD	12/15/04	0.000	20.000	
SPK-RPD	Copper	7440-50-8	93.640	6.335	RPD	12/15/04	0.000	20.000	
SPK-RPD	Mercury	7439-97-6	84.791	5.514	RPD	12/15/04	0.000	20.000	
SPK-RPD	Nickel	7440-02-0	92.317	5.224	RPD	12/15/04	0.000	20.000	
SPK-RPD	Lead	7439-92-1	90.600	3.054	RPD	12/15/04	0.000	20.000	
SPK-RPD	Antimony	7440-36-0	100.775	3.355	RPD	12/15/04	0.000	20.000	
SPK-RPD	Selenium	7782-49-2	99.828	3.206	RPD	12/15/04	0.000	20.000	

BATCH QC

BLANK	Silver	7440-22-4	<1e-3	n/a	ug/L	12/15/04		U	
BLANK	Arsenic	7440-38-2	<0.24	n/a	ug/L	12/15/04		U	
BLANK	Barium	7440-39-3	0.2052	0.205	ug/L	12/15/04			
BLANK	Beryllium	7440-41-7	<2e-3	n/a	ug/L	12/15/04		U	
BLANK	Cadmium	7440-43-9	<2e-3	n/a	ug/L	12/15/04		U	
BLANK	Chromium	7440-47-3	<0.336	n/a	ug/L	12/15/04		U	
BLANK	Copper	7440-50-8	0.3195	0.320	ug/L	12/15/04			
BLANK	Mercury	7439-97-6	5.595e-2	0.056	ug/L	12/15/04			
BLANK	Nickel	7440-02-0	9.894e-2	0.099	ug/L	12/15/04			
BLANK	Lead	7439-92-1	4.765e-2	0.048	ug/L	12/15/04			
BLANK	Antimony	7440-36-0	<0.714	n/a	ug/L	12/15/04		U	
BLANK	Selenium	7782-49-2	8.319e-2	0.083	ug/L	12/15/04			
BLANK	Uranium	7440-61-1	<1.6e-2	n/a	ug/L	12/15/04		U	
LCS	Silver	7440-22-4	160.2	134.622	% Recov	12/15/04	110.000	170.000	
LCS	Arsenic	7440-38-2	199.2	102.154	% Recov	12/15/04	82.000	142.000	
LCS	Barium	7440-39-3	359.2	91.633	% Recov	12/15/04	79.000	123.000	
LCS	Beryllium	7440-41-7	80.86	107.384	% Recov	12/15/04	82.000	128.000	
LCS	Cadmium	7440-43-9	72.66	105.918	% Recov	12/15/04	88.000	127.000	
LCS	Chromium	7440-47-3	77.53	89.630	% Recov	12/15/04	50.000	126.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Copper	7440-50-8	137.1	107.953	% Recov	12/15/04	61.000	134.000	
LCS	Mercury	7439-97-6	9.061	96.291	% Recov	12/15/04	75.000	114.000	
LCS	Nickel	7440-02-0	89.8	107.416	% Recov	12/15/04	84.000	125.000	
LCS	Lead	7439-92-1	87.71	92.815	% Recov	12/15/04	87.000	120.000	
LCS	Antimony	7440-36-0	117	84.783	% Recov	12/15/04	61.000	135.000	
LCS	Selenium	7782-49-2	124.3	109.035	% Recov	12/15/04	83.000	145.000	
LCS	Uranium	7440-61-1	370.5	92.625	% Recov	12/15/04	89.000	107.000	

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent **Group #:** WSCF20042304
Project: F03-025: F03-025

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample	Receive
Organic												
W040002532	B19197	GRP	TRENT	107-21-1	Ethylene glycol	SOIL	Organics	U	< 5.00e+03	ug/kg	1.00	5.0e+03
W040002532	B19197	GRP	TRENT	TPH/GASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02
W040002532	B19197	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51
W040002532	B19197	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02
W040002532	B19197	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51
W040002532	B19197	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51
W040002532	B19197	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51
W040002532	B19197	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51
W040002532	B19197	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51
W040002532	B19197	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51
W040002532	B19197	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51
W040002532	B19197	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 670	ug/kg	1.00	6.7e+02
W040002532	B19197	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 330	ug/kg	1.00	3.3e+02
W040002532	B19197	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e+02
W040002532	B19197	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 310	ug/kg	1.00	3.1e+02
W040002532	B19197	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70
W040002532	B19197	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70
W040002532	B19197	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70
W040002532	B19197	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70
W040002532	B19197	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70
W040002532	B19197	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 310	ug/kg	1.00	3.1e+02
W040002532	B19197	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02
W040002532	B19197	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70
W040002532	B19197	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1
W040002532	B19197	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1
W040002532	B19197	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

**Attention:
Project:**

Steve Trent
F03-025: F03-025

Group #: WSCF20042304

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF										
					Method	RQ	Result	Unit	DF	MDL	Analyze	Sample			
W040002532	B19197	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04

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U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent **Group #:** WSCF20042304
Project: F03-025 **Sample ID:** F03-025

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF						Analyze	Sample	Receive		
					Method	RQ	Result	Unit	DF	MDL					
W040002532	B19197	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	12/10/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	12/15/04	12/02/04	12/02/04
W040002532	B19197	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	12/15/04	12/02/04	12/02/04

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: Alcohols, Glycols - 8015

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

DUP	2-Bromoethanol	540-51-2	8000	5.128	rpd	12/13/04	0.000	25.000	
DUP	Ethylene glycol	107-21-1	<5000	n/a	RPD	12/13/04	0.000	25.000	U

Lab ID: W040002559

BATCH QC ASSOCIATED WITH SAMPLE

MS	2-Bromoethanol	540-51-2	8300	83.000	% Recov	12/13/04	70.000	125.000	
MS	Ethylene glycol	107-21-1	7200	72.000	% Recov	12/13/04	75.000	125.000	*
MSD	2-Bromoethanol	540-51-2	9100	91.000	% Recov	12/13/04	70.000	125.000	
MSD	Ethylene glycol	107-21-1	10500	105.000	% Recov	12/13/04	75.000	125.000	
SPK-RPD	2-Bromoethanol	540-51-2	91.000	9.195	RPD	12/13/04	0.000	20.000	
SPK-RPD	Ethylene glycol	107-21-1	105.000	37.288	RPD	12/13/04	0.000	20.000	*

BATCH QC

BLANK	2-Bromoethanol	540-51-2	7900	0.790	ug/Kg	12/13/04	0.000	10.000	
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/Kg	12/13/04	0.000	5.000	U
LCS	2-Bromoethanol	540-51-2	8900	89.000	% Recov	12/13/04	70.000	130.000	
LCS	Ethylene glycol	107-21-1	7900	79.000	% Recov	12/13/04	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: PCBs complete list

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

MS	Aroclor-1254	11097-69-1	1170.7	115.000	% Recov	12/15/04	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	919.97	90.000	% Recov	12/15/04	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	905.45	88.600	% Recov	12/15/04	50.000	150.000	
MSD	Aroclor-1254	11097-69-1	1213.5	118.000	% Recov	12/15/04	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	1001.2	97.000	% Recov	12/15/04	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	234.89	22.800	% Recov	12/15/04	50.000	150.000	*
SPK-RPD	Aroclor-1254	11097-69-1	118.000	2.575	RPD	12/15/04	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	97.000	7.487	RPD	12/15/04	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	22.800	118.133	RPD	12/15/04	0.000	20.000	*
SURR	Decachlorobiphenyl	2051-24-3	922.95	90.000	% Recov	12/15/04	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	54.946	5.360	% Recov	12/15/04	50.000	150.000	*

BATCH QC

BLANK	Aroclor-1016	12674-11-2	< 50	n/a	UGKG	12/15/04		U	
BLANK	Aroclor-1221	11104-28-2	< 100	n/a	ug/Kg	12/15/04		U	
BLANK	Aroclor-1232	11141-16-5	< 50	n/a	ug/Kg	12/15/04		U	
BLANK	Aroclor-1242	53469-21-9	< 50	n/a	ug/Kg	12/15/04		U	
BLANK	Aroclor-1248	12672-29-6	< 50	n/a	ug/Kg	12/15/04		U	
BLANK	Aroclor-1254	11097-69-1	< 50	n/a	ug/Kg	12/15/04		U	
BLANK	Aroclor-1260	11096-82-5	< 50	n/a	ug/Kg	12/15/04		U	
BLANK	Aroclor-1262	37324-23-5	< 50	n/a	ug/Kg	12/15/04		U	
BLANK	Aroclor-1268	11100-14-4	< 50	n/a	ug/Kg	12/15/04		U	
BLANK	Decachlorobiphenyl	2051-24-3	903.87	90.400	% Recov	12/15/04	50.000	150.000	
BLANK	Tetrachloro-m-xylene	877-09-8	911.11	91.100	% Recov	12/15/04	50.000	150.000	
LCS	Aroclor-1254	11097-69-1	987.29	98.700	% Recov	12/15/04	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	949.54	95.000	% Recov	12/15/04	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
Matrix: SOLID
Test: PCBs complete list

SAF Number: F03-025
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Tetrachloro-m-xylene	877-09-8	0.00	0.000	% Recov	12/15/04	50.000	150.000	*

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

SURR	2-Fluorophenol	367-12-4	2977.9	85.600	% Recov	12/22/04	42.000	105.000
SURR	2-Fluorobiphenyl	321-60-8	3214.6	92.400	% Recov	12/22/04	56.000	122.000
SURR	Nitrobenzene-d5	4165-60-0	3507.9	101.000	% Recov	12/22/04	64.000	111.000
SURR	Phenol-d5	4165-62-2	3108.1	89.400	% Recov	12/22/04	54.000	120.000
SURR	2,4,6-Tribromophenol	118-79-6	2894.8	83.200	% Recov	12/22/04	24.000	122.000
SURR	Terphenyl-d14 (7Cl)	98904-43-9	3148.6	90.500	% Recov	12/22/04	35.000	150.000

Lab ID: W040002582

BATCH QC ASSOCIATED WITH SAMPLE

MS	1,2,4-Trichlorobenzene	120-82-1	2961.9	84.700	% Recov	12/22/04	46.000	107.000
MS	1,4-Dichlorobenzene	106-46-7	2872.5	82.200	% Recov	12/22/04	30.000	96.000
MS	2,4-Dinitrotoluene	121-14-2	2825.9	80.800	% Recov	12/22/04	59.000	106.000
MS	2-Fluorophenol	367-12-4	3119.9	89.200	% Recov	12/22/04	42.000	105.000
MS	Acenaphthene	83-32-9	3226.6	92.300	% Recov	12/22/04	61.000	116.000
MS	4-Chloro-3-methoxyphenol	59-50-7	4806.0	91.700	% Recov	12/22/04	61.000	106.000
MS	2-Chlorophenol	95-57-8	4382.0	83.600	% Recov	12/22/04	66.000	106.000
MS	N-Nitrosodi-n-dipropylamine	621-64-7	3334.7	95.400	% Recov	12/22/04	71.000	114.000
MS	2-Fluorobiphenyl	321-60-8	3037.1	86.900	% Recov	12/22/04	56.000	122.000
MS	Phenol	108-95-2	5033.6	96.000	% Recov	12/22/04	42.000	111.000
MS	Nitrobenzene-d5	4165-60-0	3241.8	92.700	% Recov	12/22/04	64.000	111.000
MS	4-Nitrophenol	100-02-7	5048.7	96.300	% Recov	12/22/04	32.000	118.000
MS	Pentachlorophenol	87-86-5	4082.1	77.800	% Recov	12/22/04	62.000	114.000
MS	Phenol-d5	4165-62-2	3408.5	97.500	% Recov	12/22/04	54.000	120.000
MS	Pyrene	129-00-0	2863.3	81.900	% Recov	12/22/04	66.000	118.000
MS	2,4,6-Tribromophenol	118-79-6	3209.4	91.800	% Recov	12/22/04	24.000	122.000
MS	Terphenyl-d14 (7Cl)	98904-43-9	3128.5	89.500	% Recov	12/22/04	35.000	150.000

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date: 12/10/04
 Receive Date: 12/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	1,2,4-Trichlorobenzene	120-82-1	2829.6	81.000	% Recov	12/22/04	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	2727.4	78.100	% Recov	12/22/04	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	2690.2	77.000	% Recov	12/22/04	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	3026.0	86.600	% Recov	12/22/04	42.000	105.000	
MSD	Acenaphthene	83-32-9	3025.5	86.600	% Recov	12/22/04	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	4603.5	87.900	% Recov	12/22/04	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	4113.5	78.500	% Recov	12/22/04	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	3239.2	92.700	% Recov	12/22/04	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	2961.6	84.800	% Recov	12/22/04	56.000	122.000	
MSD	Phenol	108-95-2	4875.8	93.100	% Recov	12/22/04	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	3161.2	90.500	% Recov	12/22/04	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	4830.5	92.200	% Recov	12/22/04	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	3962.4	75.600	% Recov	12/22/04	62.000	114.000	
MSD	Phenol-d5	4165-62-2	2846.9	81.500	% Recov	12/22/04	54.000	120.000	
MSD	Pyrene	129-00-0	2748.0	78.700	% Recov	12/22/04	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	2965.3	84.900	% Recov	12/22/04	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	3030.8	86.800	% Recov	12/22/04	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	81.000	4.466	RPD	12/29/04	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	78.100	5.115	RPD	12/29/04	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	77.000	4.816	RPD	12/29/04	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	86.600	2.958	RPD	12/29/04	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	86.600	6.372	RPD	12/29/04	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	87.900	4.232	RPD	12/29/04	0.000	20.000	
SPK-RPD	2-Chlorophenol	95-57-8	78.500	6.292	RPD	12/29/04	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	92.700	2.871	RPD	12/29/04	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	84.800	2.446	RPD	12/29/04	0.000	20.000	
SPK-RPD	Phenol	108-95-2	93.100	3.067	RPD	12/29/04	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	90.500	2.402	RPD	12/29/04	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	92.200	4.350	RPD	12/29/04	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	75.600	2.868	RPD	12/29/04	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date: 12/10/04
 Receive Date: 12/10/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Phenol-d5	4165-62-2	81.500	17.877	RPD	12/29/04	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	78.700	3.985	RPD	12/29/04	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	84.900	7.810	RPD	12/29/04	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	86.800	3.063	RPD	12/29/04	0.000	20.000	
BATCH QC									
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 290	n/a	ug/Kg	12/22/04			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 310	n/a	ug/Kg	12/22/04			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 67	n/a	ug/Kg	12/22/04			U
BLANK	2-Fluorophenol	367-12-4	2255.7	67.700	% Recov	12/22/04	42.000	105.000	
BLANK	Acenaphthene	83-32-9	< 67	n/a	ug/Kg	12/22/04			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 67	n/a	ug/Kg	12/22/04			U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	12/22/04			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 67	n/a	ug/Kg	12/22/04			U
BLANK	2-Fluorobiphenyl	321-60-8	2559.3	76.800	% Recov	12/22/04	56.000	122.000	
BLANK	Phenol	108-95-2	< 100	n/a	ug/Kg	12/22/04			U
BLANK	Nitrobenzene-d5	4165-60-0	2771.8	83.200	% Recov	12/22/04	64.000	111.000	
BLANK	4-Nitrophenol	100-02-7	< 650	n/a	ug/Kg	12/22/04			U
BLANK	Pentachlorophenol	87-86-5	< 300	n/a	ug/Kg	12/22/04			U
BLANK	Phenol-d5	4165-62-2	2263.9	67.900	% Recov	12/22/04	54.000	120.000	
BLANK	Pyrene	129-00-0	< 67	n/a	ug/Kg	12/22/04			U
BLANK	Tributyl phosphate	126-73-8	< 67	n/a	ug/Kg	12/22/04			U
BLANK	2,4,6-Tribromophenol	118-79-6	2001.2	60.000	% Recov	12/22/04	24.000	122.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	2527.8	75.800	% Recov	12/22/04	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	3009.0	90.300	% Recov	12/22/04	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	2724.3	81.700	% Recov	12/22/04	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	2651.7	79.600	% Recov	12/22/04	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	3088.8	92.700	% Recov	12/22/04	50.000	110.000	
LCS	Acenaphthene	83-32-9	3017.7	90.500	% Recov	12/22/04	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	4589.5	91.800	% Recov	12/22/04	61.000	106.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	2-Chlorophenol	95-57-8	3980.8	79.600	% Recov	12/22/04	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	3085.9	92.600	% Recov	12/22/04	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	2962.6	88.900	% Recov	12/22/04	58.000	109.000	
LCS	Phenol	108-95-2	4769.1	95.400	% Recov	12/22/04	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	3237.8	97.100	% Recov	12/22/04	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	4823.4	96.500	% Recov	12/22/04	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	3906.7	78.100	% Recov	12/22/04	62.000	114.000	
LCS	Phenol-d5	4165-62-2	3643.2	109.000	% Recov	12/22/04	59.000	116.000	
LCS	Pyrene	129-00-0	2732.4	82.000	% Recov	12/22/04	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	3110.4	93.300	% Recov	12/22/04	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9.	3008.5	90.300	% Recov	12/22/04	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-025

Sample Date: 12/02/04

Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040002532									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	25616	97.900	% Recov	12/15/04	70.000	130.000
Lab ID: W040002582									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Kerosene		TPHKEROSENE	125310	95.300	% Recov	12/15/04	70.000	130.000
MS	ortho-Terphenyl	Surr	84-15-1	27201	103.000	% Recov	12/15/04	70.000	130.000
MSD	Kerosene		TPHKEROSENE	121810	92.500	% Recov	12/15/04	70.000	130.000
MSD	ortho-Terphenyl	Surr	84-15-1	27460	104.000	% Recov	12/15/04	70.000	130.000
SPK-RPD	ortho-Terphenyl	Surr	84-15-1	104.000	0.966	RPD	12/15/04	0.000	20.000
BATCH QC									
BLANK	Kerosene		TPHKEROSENE	< 3800	n/a	ug/Kg	12/15/04		U
BLANK	ortho-Terphenyl	Surr	84-15-1	23436	93.700	% Recov	12/15/04	70.000	130.000
BLANK	Total Pet. Hydrocarbons Diesel		TPHDIESEL	< 3800	n/a	ug/Kg	12/15/04		U
LCS	ortho-Terphenyl	Surr	84-15-1	49132	98.300	% Recov	12/15/04	70.000	130.000
LCS	Total Pet. Hydrocarbons Diesel		TPHDIESEL	117760	94.200	% Recov	12/15/04	80.000	120.000

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: NWTPH-GX TPH Gasoline Range

SAF Number: F03-025

Sample Date: 12/02/04

Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040002532									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3500	97.222	% Recov	12/15/04	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3600	100.000	% Recov	12/15/04	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	100.000	2.817	RPD	12/15/04	0.000	20.000	
Lab ID: W040002592									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	RPD	12/15/04	0.000	20.000	U
BATCH QC									
BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	mg/L	12/15/04	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	1044	81.818	% Recov	12/15/04	85.000	115.000	*

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F03-025

Sample Date: 12/02/04

Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W040002532									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	460-00-4	47.990	96.000	% Recov	12/10/04	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	58.920	118.000	% Recov	12/10/04	80.000	134.000	
SURR	Toluene-d8	2037-26-5	55.480	111.000	% Recov	12/10/04	80.000	126.000	
Lab ID: W040002534									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,1-Dichloroethene	75-35-4	55.390	98.300	% Recov	12/10/04	63.000	117.000	
MS	Benzene	71-43-2	63.950	113.000	% Recov	12/10/04	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	111.00	98.500	% Recov	12/10/04	84.000	116.000	
MS	Chlorobenzene	108-90-7	62.560	111.000	% Recov	12/10/04	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	132.30	117.000	% Recov	12/10/04	82.000	136.000	
MS	Toluene-d8	2037-26-5	120.40	107.000	% Recov	12/10/04	89.000	119.000	
MS	Toluene	108-88-3	61.850	110.000	% Recov	12/10/04	76.000	120.000	
MS	Trichloroethene	79-01-6	58.670	104.000	% Recov	12/10/04	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	53.310	94.600	% Recov	12/10/04	63.000	117.000	
MSD	Benzene	71-43-2	63.050	112.000	% Recov	12/10/04	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	109.60	97.200	% Recov	12/10/04	84.000	116.000	
MSD	Chlorobenzene	108-90-7	64.080	114.000	% Recov	12/10/04	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	132.60	118.000	% Recov	12/10/04	82.000	136.000	
MSD	Toluene-d8	2037-26-5	117.60	104.000	% Recov	12/10/04	89.000	119.000	
MSD	Toluene	108-88-3	61.510	109.000	% Recov	12/10/04	76.000	120.000	
MSD	Trichloroethene	79-01-6	59.600	106.000	% Recov	12/10/04	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	94.600	3.836	RPD	12/10/04	0.000	25.000	
SPK-RPD	Benzene	71-43-2	112.000	0.889	RPD	12/10/04	0.000	25.000	
SPK-RPD	4-Bromofluorobenzene	460-00-4	97.200	1.329	RPD	12/10/04	0.000	25.000	
SPK-RPD	Chlorobenzene	108-90-7	114.000	2.667	RPD	12/10/04	0.000	25.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: VOA Ground Water Protection

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	118.000	0.851	RPD	12/10/04	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	104.000	2.844	RPD	12/10/04	0.000	25.000	
SPK-RPD	Toluene	108-88-3	109.000	0.913	RPD	12/10/04	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-6	106.000	1.905	RPD	12/10/04	0.000	25.000	
BATCH QC									
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	1-Butanol	71-36-3	< 20	n/a	ug/Kg	12/10/04		U	
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Bromodichloromethane	75-27-4	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	4-Bromofluorobenzene	460-00-4	50.620	101.000	% Recov	12/10/04	71.000	125.000	
BLANK	Bromoform	75-25-2	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	Chloroethane	75-00-3	< 1.0	n/a	ug/Kg	12/10/04		U	
BLANK	1,2-Dichloroethane-d4	17060-07-0	57.720	115.000	% Recov	12/10/04	80.000	134.000	
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/Kg	12/10/04		U	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F03-025

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Toluene-d8	2037-26-5	52.860	106.000	% Recov	12/10/04	80.000	126.000	
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/Kg	12/10/04			U
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/Kg	12/10/04			U
LCS	1,1-Dichloroethene	75-35-4	23.720	94.900	% Recov	12/10/04	70.000	130.000	
LCS	Benzene	71-43-2	28.010	112.000	% Recov	12/10/04	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	50.820	102.000	% Recov	12/10/04	71.000	125.000	
LCS	Chlorobenzene	108-90-7	28.040	112.000	% Recov	12/10/04	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	56.710	113.000	% Recov	12/10/04	80.000	134.000	
LCS	Toluene-d8	2037-26-5	53.870	108.000	% Recov	12/10/04	80.000	126.000	
LCS	Toluene	108-88-3	28.260	113.000	% Recov	12/10/04	70.000	130.000	
LCS	Trichloroethene	79-01-6	26.980	108.000	% Recov	12/10/04	70.000	130.000	

WSCF

ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F03-025: F03-025

Group #: WSCF20042304

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze Sample	Receive	
					Method	RQ							
Radiochemistry													
W040002532	B19197	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471		0.0580	pCi/g	1.00	0.022	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.026	pCi/g	1.00	0.0	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	5.32e-03	pCi/g	1.00	0.011	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	6.5e-03	pCi/g	1.00	0.0	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481	U	-7.00e-03	pCi/g	1.00	0.011	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	7.0e-03	pCi/g	1.00	0.0	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	0.0192	pCi/g	1.00	0.031	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.029	pCi/g	1.00	0.0	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U	-0.0238	pCi/g	1.00	0.032	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.024	pCi/g	1.00	0.0	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481	U	0.0434	pCi/g	1.00	0.046	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.032	pCi/g	1.00	0.0	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	13994-20-2	Neptunium-237	SOIL	LA-508-471	U	2.50e-03	pCi/g	1.00	7.6e-03	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Np-237 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.025	pCi/g	1.00	0.0	01/03/05 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U	-3.70e-03	pCi/g	1.00	0.041	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.021	pCi/g	1.00	0.0	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		0.0170	pCi/g	1.00	5.0e-03	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	+-	0.012	pCi/g	1.00	0.0	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471		0.120	pCi/g	1.00	5.3e-03	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+-	0.043	pCi/g	1.00	0.0	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471		6.40e-03	pCi/g	1.00	5.8e-03	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+-	7.7e-03	pCi/g	1.00	0.0	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.160	pCi/g	1.00	5.3e-03	12/28/04 12/02/04 12/02/04
W040002532	B19197	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.054	pCi/g	1.00	0.10	12/28/04 12/02/04 12/02/04

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: Americium by AEA

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Americium-241	14596-10-2	5.6e-02	3.509	RPD	12/28/04	0.000	20.000
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BATCH QC

BLANK	Americium-241	14596-10-2	5.9e-02	0.059	pCi/g	12/28/04	-10.000	1000.000
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LCS	Americium-241	14596-10-2	4.6e+01	95.634	% Recov	12/28/04	75.000	125.000
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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304

Matrix: SOLID

Test: Gamma Energy Analysis-grd H₂O

SAF Number: F03-025

Sample Date: 12/02/04

Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Cobalt-60	10198-40-0	U-6.00e-4	n/a	RPD	01/03/05	0.000	20.000	
DUP	Cesium-137	10045-97-3	U2.14e-03	n/a	RPD	01/03/05	0.000	20.000	
DUP	Europium-152	14683-23-9	U-1.20e-2	n/a	RPD	01/03/05	0.000	20.000	
DUP	Europium-154	15585-10-1	U-1.10e-2	n/a	RPD	01/03/05	0.000	20.000	
DUP	Europium-155	14391-16-3	U3.66e-02	n/a	RPD	01/03/05	0.000	20.000	

BATCH QC

BLANK	Cobalt-60	10198-40-0	U-7.0e-4	n/a	pCi/g	12/07/04	-10.000	1000.000	
BLANK	Cesium-137	10045-97-3	U-2.2e-4	n/a	pCi/g	12/07/04	-10.000	1000.000	
BLANK	Europium-152	14683-23-9	U-1.8e-2	n/a	pCi/g	12/07/04	-10.000	1000.000	
BLANK	Europium-154	15585-10-1	U-1.7e-3	n/a	pCi/g	12/07/04	-10.000	1000.000	
BLANK	Europium-155	14391-16-3	U-5.3e-3	n/a	pCi/g	12/07/04	-10.000	1000.000	
LCS	Cobalt-60	10198-40-0	4.46e +03	106.444	% Recov	12/08/04	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.83e +03	106.983	% Recov	12/08/04	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: Neptunium by AEA

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Neptunium-237	13994-20-2	U9.9e-04	n/a	RPD	01/03/05	0.000	25.000
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BATCH QC

BLANK	Neptunium-237	13994-20-2	0.00	0.000	pCi/g	01/03/05	-10.000	1000.000
LCS	Neptunium-237	13994-20-2	29.3	29.300	% Recov	01/03/05	75.000	125.000

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: Plutonium Isotopes by AEA

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Pu-239/240 by AEA	PU-239/240	U7.5e-03	n/a	RPD	12/28/04	0.000	20.000
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BATCH QC

BLANK	Pu-239/240 by AEA	PU-239/240	2.5e-02	0.025	pCi/g	12/28/04	-10.000	1000.000
LCS	Pu-239/240 by AEA	PU-239/240	5.0e+01	101.626	% Recov	12/28/04	75.000	125.000

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20042304
 Matrix: SOLID
 Test: Uranium Isotopes by AEA

SAF Number: F03-025
 Sample Date: 12/02/04
 Receive Date: 12/02/04

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W040002532

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Uranium-238	U-238	U9.7E-02	n/a	RPD	12/28/04	0.000	20.000
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BATCH QC

BLANK	Uranium-238	24678-82-8	U1.1e-02	n/a	pCi/g	12/28/04	-10.000	1000.000
LCS	Uranium-238	24678-82-8	8.8e +01	116.064	% Recov	12/28/04	75.000	125.000

WSCF

ANALYTICAL COMMENT REPORT

Attention:
Project Number

Steve Trent
F03-025

Group #: WSCF20042304

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: PB results are in ug/L (ppb) and sample results are in ug/g (ppm); no flags. IC anions: DUP RPD criterion not applicable for sample results <10X MDL. Low spike recoveries for phosphate probably due to matrix effect. No phosphate detected in sample. -wb Ammonium-N: Ammonium-N detected in sample but at a concentration less than that of the lowest calibration level ORGANICS: Sample concentrations are corrected for moisture and reported as dry weight basis. gar
				PCB: Low recovery of the surrogate tetra-chloro-m-xylene (TCX) is due to evaporation of TCX during blowdown concentration. TCX is much more volatile than Aroclor PCB or DCB surrogate. DCB and Aroclor recoveries are nominal in all samples, LCS, as matrix spikes demonstrating that Aroclor PCBs if present are not lost even with excessive blowdown concentration. cgc B015GPP: MS of Ethylene Glycol out low, hence SPK-RPD is also out high. gar
				TPH-G: LCS out low (82%) all other QC good though. gar
				W040002532/Np237 lcs recovery is low so the sample result is an estimated value.lmh

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample

VALTEST - Test Validation
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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WSCF

TENTATIVELY IDENTIFIED PEAK REPORT

**Attention:
Project Number**

Steve Trent
F03-025 :F03-025

Group #: WSCF20042304

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error		13	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-212 Count Error		14	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-214 Count Error		16	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	AC-228 Count Error		18	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-228 Count Error		18	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	TL-208 Count Error		18	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-214 Count Error		19	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-226 Count Error		19	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	SN-126 Count Error		24	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	U-235 Count Error		33	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-212 Count Error		38	%
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	SN-126		0.11	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	TL-208		0.15	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-212		0.27	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	BI-214		0.36	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-226		0.36	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-214		0.39	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	AC-228		0.46	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	RA-228		0.46	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	PB-212		0.46	pCi/g
W040002532	B19197	GRP	TRENT	Gamma Energy Analysis-grd H2O	K-40		12	pCi/g
W040002532	B19197	GRP	TRENT	SW-846 8270B Semi-Vols	SMP 14.669 Di-n-butylphthalate	84-74-2	14.66965	1.2e +03 ug/kg

RQ=Result Qualifier

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Groundwater Remediation Program

WGPPE v 1.1 Report #: 20042304

Report Date: 6-jan-2005

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WSCF

METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-212-411	Determination of Soil pH Measurement EPA SW-846 9045C	SOIL AND WASTE pH
LA-503-401	LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY EPA-600/4-86-024 300.7	Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE EPA SW-846 6010B	INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY
LA-505-412	LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY EPA-600/R-94-111 200.8	DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS
LA-508-471	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP None	No reference to any industry method.
LA-508-481	LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE None	No reference to any industry method.
LA-519-412	LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C EPA-600/4-79-020 160.3 Standard Methods 2540B	RESIDUE, TOTAL Total Solids Dried at 103-105 C
LA-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY EPA SW-846 3510C EPA SW-846 3545	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION PRESSURIZED FLUID EXTRACTION (PFE)

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line
links to full-text versions of the procedures and methods, where available.

WSCF

METHOD REFERENCES REPORT

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	EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8082	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
LA-523-443	LA-523-443: GAS CHROMATOGRAPH ANALYSIS OF GASOLINE RANGE TOTAL PETROLEUM HYDROCARBONS WDOE TPH NWTPH-G	Volatile Petroleum Products Method for Soil and Water
LA-523-455	LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846 EPA SW-846 8000B EPA SW-846 8260B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C EPA SW-846 8000B EPA SW-846 8270C	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY EPA-600/R-94-111 300	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC EPA-600/4-79-020 335.2	Cyanide, Total
NWTPH	NWTPH-Diesel and/or Gasoline WDOE NWTPH-Dx/Gx	Total Petroleum Hydrocarbons - Diesel/Gasoline
Organics	Organics - Alcohols, Glycols	

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line
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Report Date: 6-jan-2005

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WSCF

METHOD REFERENCES REPORT

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EPA SW-846 8015B

Nonhalogenated Organics Using GC/FID

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Report Date: 6-jan-2005

Report #: WSCF20042304

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W13q Worklist/Batch/QC Report for Group# WSCF20042304

WL#	S#	Batch	QC#	Tray	Type	Sample#	Test
				SAMPLE		W040002532	Percent Solids
				SAMPLE		W040002532	pH Soil and Waste Measurement
			27977	BLANK			Cyanide by Midi/Spectrophotom
			27977	BLNK-PREP			Cyanide by Midi/Spectrophotom
			27977	LCS			Cyanide by Midi/Spectrophotom
			27977	MS	W040002509		Cyanide by Midi/Spectrophotom
			27977	MSD	W040002509		Cyanide by Midi/Spectrophotom
			27977	SPK-RPD	W040002509		Cyanide by Midi/Spectrophotom
			27977	SAMPLE	W040002532		Cyanide by Midi/Spectrophotom
24435	1	24793	28111	BLANK			ICP-2008 MS All possible metal
24435	2	24793	28111	LCS			ICP-2008 MS All possible metal
24435	4	24793	28111	MS	W040002460		ICP-2008 MS All possible metal
24435	5	24793	28111	MSD	W040002460		ICP-2008 MS All possible metal
24435	7	24793	28111	MS	W040002509		ICP-2008 MS All possible metal
24435	8	24793	28111	MSD	W040002509		ICP-2008 MS All possible metal
24435	11	24793	28111	MS	W040002532		ICP-2008 MS All possible metal
24435	12	24793	28111	MSD	W040002532		ICP-2008 MS All possible metal
24435	10	24793	28111	SAMPLE	W040002532		ICP-2008 MS All possible metal
24435	14	24793	28111	MS	W040002534		ICP-2008 MS All possible metal
24435	15	24793	28111	MSD	W040002534		ICP-2008 MS All possible metal
24435	17	24793	28111	MS	W040002558		ICP-2008 MS All possible metal
24435	18	24793	28111	MSD	W040002558		ICP-2008 MS All possible metal
24435	20	24793	28111	MS	W040002567		ICP-2008 MS All possible metal
24435	21	24793	28111	MSD	W040002567		ICP-2008 MS All possible metal
24435	24	24793	28111	MS	W040002569		ICP-2008 MS All possible metal
24435	25	24793	28111	MSD	W040002569		ICP-2008 MS All possible metal
24435	27	24793	28111	MS	W040002581		ICP-2008 MS All possible metal
24435	28	24793	28111	MSD	W040002581		ICP-2008 MS All possible metal
24435	0	24793	28111	SPK-RPD	W040002581		ICP-2008 MS All possible metal
24435	31	24793	28111	MS	W040002585		ICP-2008 MS All possible metal
24435	32	24793	28111	MSD	W040002585		ICP-2008 MS All possible metal
24435	0	24793	28111	SPK-RPD	W040002585		ICP-2008 MS All possible metal
24468	2	24826	28131	BLANK			Anions by Ion Chromatography
24468	8	24826	28131	BLANK			Anions by Ion Chromatography
24468	3	24826	28131	LCS			Anions by Ion Chromatography
24468	5	24826	28131	DUP	W040002532		Anions by Ion Chromatography
24468	6	24826	28131	MS	W040002532		Anions by Ion Chromatography
24468	7	24826	28131	MSD	W040002532		Anions by Ion Chromatography
24468	4	24826	28131	SAMPLE	W040002532		Anions by Ion Chromatography
24442	1	24800	28144	BLANK			ICP Metals Analysis, Grd H2O P
24442	2	24800	28144	LCS			ICP Metals Analysis, Grd H2O P
24442	4	24800	28144	MS	W040002509		ICP Metals Analysis, Grd H2O P
24442	5	24800	28144	MSD	W040002509		ICP Metals Analysis, Grd H2O P
24442	0	24800	28144	SPK-RPD	W040002509		ICP Metals Analysis, Grd H2O P
24442	7	24800	28144	SAMPLE	W040002532		ICP Metals Analysis, Grd H2O P
24529	3	24887	28174	BLANK			Ammonia (N) by IC
24529	8	24887	28174	BLANK			Ammonia (N) by IC
24529	2	24887	28174	LCS			Ammonia (N) by IC
24529	5	24887	28174	DUP	W040002532		Ammonia (N) by IC

24529	6	24887	28174	MS		W040002532	Ammonia (N) by IC
24529	7	24887	28174	MSD		W040002532	Ammonia (N) by IC
24529	4	24887	28174	SAMPLE		W040002532	Ammonia (N) by IC
			28176	BLANK			WTPH-D TPH Diesel Range (Wa)
			28176	LCS			WTPH-D TPH Diesel Range (Wa)
			28176	SAMPLE	W040002532		WTPH-D TPH Diesel Range (Wa)
			28176	SURR	W040002532		WTPH-D TPH Diesel Range (Wa)
			28176	MS	W040002582		WTPH-D TPH Diesel Range (Wa)
			28176	MSD	W040002582		WTPH-D TPH Diesel Range (Wa)
			28176	SPK-RPD	W040002582		WTPH-D TPH Diesel Range (Wa)
			28210	BLANK			PCBs complete list
			28210	LCS			PCBs complete list
			28210	MS	W040002532		PCBs complete list
			28210	MSD	W040002532		PCBs complete list
			28210	SAMPLE	W040002532		PCBs complete list
			28210	SPK-RPD	W040002532		PCBs complete list
			28210	SURR	W040002532		PCBs complete list
			28222	BLANK			SW-846 8270B Semi-Vols
			28222	LCS			SW-846 8270B Semi-Vols
			28222	SAMPLE	W040002532		SW-846 8270B Semi-Vols
			28222	SURR	W040002532		SW-846 8270B Semi-Vols
			28222	MS	W040002582		SW-846 8270B Semi-Vols
			28222	MSD	W040002582		SW-846 8270B Semi-Vols
			28222	SPK-RPD	W040002582		SW-846 8270B Semi-Vols
			28227	BLANK			VOA Ground Water Protection
			28227	LCS			VOA Ground Water Protection
			28227	SAMPLE	W040002532		VOA Ground Water Protection
			28227	SURR	W040002532		VOA Ground Water Protection
			28227	MS	W040002534		VOA Ground Water Protection
			28227	MSD	W040002534		VOA Ground Water Protection
			28227	SPK-RPD	W040002534		VOA Ground Water Protection
24557	1	24916	28231	BLANK			Uranium Isotopics by AEA
24557	2	24916	28231	LCS			Uranium Isotopics by AEA
24557	3	24916	28231	DUP	W040002532		Uranium Isotopics by AEA
24557	4	24916	28231	SAMPLE	W040002532		Uranium Isotopics by AEA
24558	1	24915	28232	BLANK			Americium by AEA
24558	2	24915	28232	LCS			Americium by AEA
24558	3	24915	28232	DUP	W040002532		Americium by AEA
24558	4	24915	28232	SAMPLE	W040002532		Americium by AEA
24559	1	24914	28233	BLANK			Plutonium Isotopics by AEA
24559	2	24914	28233	LCS			Plutonium Isotopics by AEA
24559	3	24914	28233	DUP	W040002532		Plutonium Isotopics by AEA
24559	4	24914	28233	SAMPLE	W040002532		Plutonium Isotopics by AEA
24556	1	24913	28241	BLANK			Neptunium by AEA
24556	2	24913	28241	LCS			Neptunium by AEA
24556	3	24913	28241	DUP	W040002532		Neptunium by AEA
24556	4	24913	28241	SAMPLE	W040002532		Neptunium by AEA
24276	1	24632	28243	BLANK			Gamma Energy Analysis-grd H2O
24276	2	24632	28243	LCS			Gamma Energy Analysis-grd H2O
24276	3	24632	28243	DUP	W040002532		Gamma Energy Analysis-grd H2O
24276	4	24632	28243	SAMPLE	W040002532		Gamma Energy Analysis-grd H2O

24594	1	24951	28281	BLANK		Alcohols, Glycols - 8015
24594	2	24951	28281	LCS		Alcohols, Glycols - 8015
24594	4	24951	28281	DUP	W040002532	Alcohols, Glycols - 8015
24594	3	24951	28281	SAMPLE	W040002532	Alcohols, Glycols - 8015
24594	5	24951	28281	MS	W040002559	Alcohols, Glycols - 8015
24594	6	24951	28281	MSD	W040002559	Alcohols, Glycols - 8015
24594	6	24951	28281	SPK-RPD	W040002559	Alcohols, Glycols - 8015
24630	1	24986	28315	BLANK		NWTPH-GX TPH Gasoline Range
24630	2	24986	28315	LCS		NWTPH-GX TPH Gasoline Range
24630	5	24986	28315	MS	W040002532	NWTPH-GX TPH Gasoline Range
24630	6	24986	28315	MSD	W040002532	NWTPH-GX TPH Gasoline Range
24630	7	24986	28315	SAMPLE	W040002532	NWTPH-GX TPH Gasoline Range
24630	6	24986	28315	SPK-RPD	W040002532	NWTPH-GX TPH Gasoline Range
24630	4	24986	28315	DUP	W040002592	NWTPH-GX TPH Gasoline Range

M8141-SLF-05-013

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

Consisting of 4 pages
Including cover page

Waste Sampling and Characterization Facility
 P.O. BOX 1970 S3-30, Richland, WA 99352
 PHONE: (509) 373-7004/FAX: (509) 373-7134

File
N/1
1/03/05

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
 Attn: Steve Trent

Customer Code: GPP
 PO#: 119143/ES20
 Group#: 20042304
 Project#: F03-025
 Proj Mgr: Steve Trent
 Phone: 373-5869

A0-21

The following samples were received from you on 12/02/04. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Matrix	Sample Date
		Tests Scheduled	
W040002532	B19197	GRP TRENT Solid, or handle as if solid @2008 @8015GPP @AEA-30 @AEA-31 @AEA-32 @AEA-33 @GEA-GPP @GPP6010 @IC-30 @PCBGPP @SVOC @TPHD-WA @TPHG-WA @VOA-GPP @CN-02 NH4-IC PERSO PH-30	12/02/04

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@8015GPP	Alcohols, Glycols - 8015
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@AEA-33	Neptunium by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@GPP6010	ICP Metals Analysis, Grd H2O P
@IC-30	Anions by Ion Chromatography
@PCBGPP	PCBs complete list
@SVOCGPP	SW-846 8270B Semi-Vol
@TPHD-WA	WTPH-D TPH Diesel Range (Wa)
@TPHG-WA	NWTPH-GX TPH Gasoline Range
@VOA-GPP	VOA Ground Water Protection
CN-02	Cyanide by Midi/Spectrophotom
NH4-IC	Ammonia (N) by IC
PERSOLID	Percent Solids
PH-30	pH Soil and Waste Measurement

1/31/04

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F03-025-065	PAGE 1 OF 2			
COLLECTOR Pope/Pfister/Wiberg/Tyra		COMPANY CONTACT TRENT, STEVE			TELEPHONE NO. 373-5689		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND		
SAMPLING LOCATION 216-T-28; 223.5ft-226ft		PROJECT DESIGNATION 200-LW-1/LW-2 Characterization - Soil					SAF NO. F03-025		AIR QUALITY <input type="checkbox"/>	45 Days / 45 Days		
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119143ES10		METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A						
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Sediment SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS <i>20042304</i> N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None			
		TYPE OF CONTAINER	Gs*	aG	aG	Gs*	P	aG	aG			
		NO. OF CONTAINER(S)	3	1	1	3	1	1	1			
		VOLUME	40mL	120mL	120mL	40mL	500mL	250mL	120mL			
		SPECIAL HANDLING AND/OR STORAGE <i>N/A 2304 1-104</i>	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS		
		SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B19197 <i>W040002532</i>	SOIL	12/2/04	0800	X X X X X X X X								
CHAIN OF POSSESSION		SIGN/ PRINT NAMES			SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
RELINQUISHED BY/REMOVED FROM <i>R. PASTER/Jan 12</i>	DATE/TIME 12/2/04 0912	RECEIVED BY/STORED IN <i>Victor J Sims 12/2/04 0912</i>			DATE/TIME <i>12/2/04 0912</i>							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN			DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN			DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN			DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN			DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN			DATE/TIME							
LABORATORY SECTION	RECEIVED BY				TITLE	DATE/TIME						
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD				DISPOSED BY	DATE/TIME						

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F03-025-065	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Wiberg/Tyra	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5689	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 2A <input type="checkbox"/> AIR QUALITY	DATA TURNAROUND 24 Hours 9/8/1 45 Days N-1-04
SAMPLING LOCATION 216-T-28; 223.5ft-226ft	PROJECT DESIGNATION 200-LW-1/LW-2 Characterization - Soil		SAF NO. F03-025		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119143ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

The laboratory is to analyze pH within 24 hours of sample receipt. The laboratory is to report kerosene range organics from the WTPH-D analysis.

- (1)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol)
- (2)Semi-VOA - 8270A (TCL) (Phenol) Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} TPH-Gasoline Range - WTPH-G;
- (3)Alcohols, Glycols, & Ketones - 8015 (Ethylene glycol)
- (4)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Gamma Spec - Add-on (Antimony-125, Cesium-134) Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Americium-241;
- (5)ICP/MS - 200.8 (TAL) (Antimony, Barium, Cadmium, Chromium, Copper, Nickel, Silver) ICP/MS - 200.8 (Add-on) (Argent, Beryllium, Lead, Mercury, Selenium, Uranium) ICP Metals - 6010A (Add-on) (Bismuth)
- (6)IC Anions - 300.0 (Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Cations (IC) - 300.7 (Nitrogen in ammonium) Cyanide (Total) - 335.2; pH (Soil) - 9045;